

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018096**Date Inspected:** 07-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr.Qiu Wen.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

NDT

BAY 10

This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6027 (UT) report for this date. The member is identified as OBG U Rib. The weld designations reviewed are as follows.

GGL-MQ-1958-1, 2, 3-1, 2, GGL-MQ-1958-4, 5, 6-1, 2, GGL-MQ-1958-7, 8, 9-1, 2

GGL-MQ-1958-10, 12-1, 2

NDT Notification No-07260

BAY 10 AND 11

This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6027 (UT) report for this date. The member is identified as OBG Bike path. The weld designations reviewed are as follows.

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BK004A3-029-002, 010, BK004A5-029-002, 008,  
BK005A1-003-044  
NDT Notification No-07266

This QA Inspector observed the following work in progress:

BAY 10

Tower lift 6, FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040302, 053869, Perform Flux Core Arc Welding (FCAW) on Tower lift 6 face A plate. Joint identified as NSD1-FASA6-3-7, 8, 1, 2. ZPMC QC Identified as Li Peng Fei. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132. For more information see below attached picture number 1.

SMAW Process, Repair welding:

This QA Inspector observed ZPMC qualified welding personnel identified as 052493 Perform Shielded Metal Arc Welding (SMAW) on OBG Bike path base metal repair on deck plate depth observed 7~8mm. Bike path identified as BK004A1-028. ZPMC QC Identified as Lijun with Critical welding repair report CWR-B-CWR 2165. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-1G (1F) –Repair.

BAY 11

OBG Bike path plate FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040723, 205649, Perform Flux Core Arc Welding (FCAW) on OBG bike path. Joint identified as BK008A6-002-094, 095. ZPMC CWI Identified as Yu Dong Ping. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2131.

This QA Inspector observed ZPMC qualified welding personnel identified as 040723, 205649, Perform Flux Core Arc Welding (FCAW) on OBG bike path. Joint identified as BK008A7-002-039, 040, 045, 046. ZPMC CWI Identified as Yu Dong Ping. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2133.

This QA Inspector observed ZPMC qualified welding personnel identified as 040723, Perform Flux Core Arc Welding (FCAW) on OBG bike path. Joint identified as BK004A6-020-001, 165. ZPMC CWI Identified as Yu Dong Ping. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2333-Tc-P4-F.

This QA Inspector observed ZPMC qualified welding personnel identified as 040723, Perform Flux Core Arc Welding (FCAW) on OBG bike path. Joint identified as BK004A6-020-002, 007. ZPMC CWI Identified as Yu Dong Ping. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2332-Tc-P4-F.

OBG Bike path, SMAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040655 Perform Shielded Metal Arc

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Welding (SMAW) on OBG bike path angle plate. Joint identified as BK004A-053-014, 015, 016, 017. ZPMC CWI Identified as Yu Dong Ping. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2113.

Tower SMAW process:

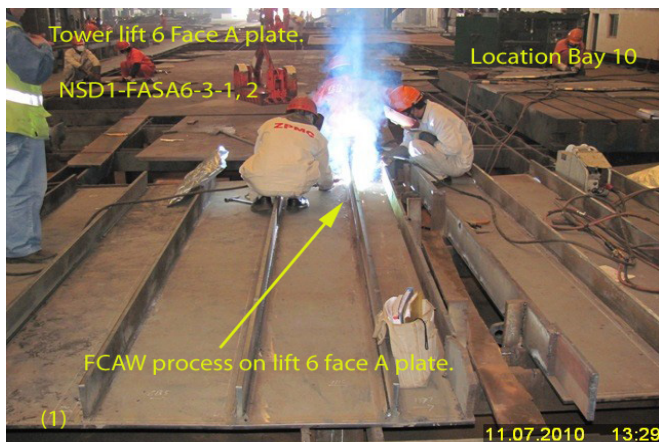
This QA Inspector observed ZPMC qualified welding personnel identified as 040724, Perform Shielded Metal Arc Welding (SMAW) on Tower Bracket Stiffener lift 5. Joint identified as ND1-BRSA5-2-19A. ZPMC QC Identified as Shao Hai Lang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-Tc-U5b.

This QA Inspector observed ZPMC qualified welding personnel identified as 044541, Perform Shielded Metal Arc Welding (SMAW) on Tower Bracket Stiffener lift 5. Joint identified as SD1-BRSA5-1-6A. ZPMC QC Identified as Shao Hai Lang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3212-Tc-U5b.

Magnetic Particle Testing:

This QA Inspector observed ZPMC Magnetic Particle Testing Inspector, performed MT on OBG Bike path railing plate. Joint identified as BK0004A1-017-005, 006, 001, 010 and BK0004A1-017-008, 038, 004, 013. For more information see below attached picture number 2.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



## Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Thomas Ho phone : 150002048250, who represents the Office of Structural Materials for your project.

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**Inspected By:** Gaikwad,Shailesh

Quality Assurance Inspector

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**Reviewed By:** Clifford,William

QA Reviewer